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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,714	01/23/2004	Daniel Chien	60130-1495; 02MRA0344	7325
26096	7590	12/30/2004	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			KRAMER, DEVON C	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,714

Applicant(s)

CHIEN ET AL.

Examiner

Devon C Kramer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,5,9,10 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-8,11-15 and 17-24 is/are rejected.
- 7) ☒ Claim(s) 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1) The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 23-25 have been renumbered 22-24.

Claim Rejections - 35 USC § 102

2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3) Claims 1, 4, 6, 13-14, 19-21 and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Attinger (CH 663387).

In re claims 1, 13 and 19, Attinger provides an axle assembly (figure 1) for a vehicle comprising, an axle shaft (3) mounted for rotation within a first housing (7), a hub (2) fixed to a first end of said axle shaft, and a brake assembly (11) mounted to said shaft and spaced a distance from said hub, such that said brake assembly is outside a wheel mountable to said hub. Note that what the examiner is calling a housing portion in Attinger is the portion that extends from the brake disk to the wheel. Therefor, the rotor

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is disposed outside of the housing and attached to the axle shaft adjacent the second end wherein the second end is spaced apart from the hub a first length greater than an axial length of the housing.

In re claim 4 and 14, see elements 11, and 14.

In re claim 6, the brake of Attinger shows a pneumatic brake.

In re claim 20, see element 11.

In re claim 21, see element 14 and 16.

In re claims 23-24, please note that this is inherent from the drawings.

Claim Rejections - 35 USC § 103

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Attinger (CH 663387) in view of Anderson et al (4583609).

Attinger lacks the teaching of a hydraulic brake.

Anderson et al teaches a hydraulic brake attached to a housing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the brake of Attinger with a hydraulic actuator as a design choice depending on the type of vehicle.

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6) Claims 8, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attinger (CH 663387) in view of Inoue et al (2002/0028721).

In re claims 8 and 15, it is known in the art to support axle shafts with bearings. Attinger is silent to bearings supporting the axle shaft.

Inoue et al teaches bearing assemblies (10) supporting the axle shaft.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the axle shaft of Attinger with bearing assemblies as taught by Inoue et al merely to reduce friction on the axle shaft, reduce local overheating; and to increase efficiency.

In re claims 17, it is known to provide a seal between the housing and shaft to keep lubricates in the housing and contaminates out. Attinger is silent to a seal.

In Inoue et al, please note the seal depicted in figure 8, adjacent element 110.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Attinger with a seal as taught by Inoue et al to improve the life of the axle shaft by keeping lubricants in the housing and contaminants out.

7) Claims 11-12, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attinger (CH 663387) in view of Seki (2003/0136613).

Attinger are silent to the suspension assembly.

Seki teaches an arrangement where a housing is connected to a suspension assembly (figure 5) where a suspension arm (26) is pivotally mounted to a frame (3).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the axle assembly of Attinger with the suspension assembly as taught by Seki merely to provide the vehicle with a suspension to improve the ride for a driver, and to make the vehicle more safe.

Response to Arguments

8) Applicant's arguments filed 12/8/04 have been fully considered but they are not persuasive. Applicant argues that the location of the second end in Attinger is different from that now claimed. Please note that, like applicant, Attinger's housing stops at brake disk and then continues again. Thus only the portion extending to the right in the figure is considered the housing.

Conclusion

9) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

Devon C Kramer
12/21/04

Robert A. Siconolfi 12/21/04
ROBERT A. SICONOLFI
PATENT EXAMINER